

# EXHIBIT 23

An das Europäische Patentamt  
To the European Patent Office  
A l'Office européen des brevets

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**ANTRAG AUF ERTEILUNG EINES EUROPÄISCHEN PATENTS / REQUEST FOR GRANT  
OF A EUROPEAN PATENT / REQUETE EN DELIVRANCE D'UN BREVET EUROPEEN**

Der (Die) Unterzeichnete(n) beantragt (beantragen) die Erteilung eines europäischen Patents aufgrund dieser Anmeldung.  XX(We), the undersigned, request the grant of a European Patent on the basis of the present application.  Je (Nous), soussigné(s) requiers (requérons) la délivrance d'un brevet européen sur la base de la présente demande.		Nummer der Anmeldung / Application No. / N° de la demande  84302203.9	
Zeichen des (der) Anmelders (Anmelder) oder Vertreters (Vertreter) (max. 15 Positionen) <del>XXXXXXXX</del> Representative's Reference (maximum 15 spaces) Reference du (des) demandeur(s) ou du (des) mandataire(s) (max. 15 caractères ou espaces)  ARCH / EA 1098		Tag des Eingangs (Regel 24 (2)) / Date of Receipt (Rule 24 (2)) / Date de réception (règle 24 (2))  130 MAR 1984	
		Tag des Eingangs beim EPA (Regel 24 (4)) / Date of Receipt at the EPO (Rule 24 (4)) / Date de réception à l'OEB (règle 24 (4))  06.4.84	
		Anmeldetag / Date of Filing / Date de dépôt	
I. Anmelder Applicant Demandeur  Name / Nom  AMPEX CORPORATION		Weiterer (Weitere) Anmelder ist (sind) in Feld XIX (Seite 5) angegeben. Additional applicant(s) indicated in Part XIX (page 5). Les autres demandeurs sont mentionnés à la rubrique XIX (page 5).  3877900	
Anschrift (mit Postleitzahl und Staat) Address (including postal code and State) Adresse (avec le code postal et le nom de l'Etat)  401 Broadway, Redwood City, State of California 94063, United States of America.		Zustellanschrift Address for correspondence Adresse pour la correspondance  [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]	
Telefonnummer / Telephone number / Numéro de téléphone	Telegrammanschrift / Telegraphic address / Adresse télégraphique	Telexanschrift / Telex address / Numéro de télex	
Staatsangehörigkeit / Nationality / Nationalité a corporation organized and existing under the laws of the State of California, United States of America.		Staat des Wohnsitzes oder Sitzes / State of residence or of principal place of business / Etat du domicile ou du siège du demandeur  CALIFORNIA	
II. Vertreterbestellung / Appointment of representative(s) / Constitution de mandataire(s)		0320218	
Nr. / No. / N° 1001		der allgemeinen Vollmacht / of the general authorisation / du pouvoir général	
Name (Hier nur einen Vertreter angeben, der in das europäische Patentregister eingetragen und an den zugestellt wird). Name (Here name only one representative, who is to be listed in the Register of European Patents and to whom notification is to be made). Nom (n'indiquer ici qu'un seul mandataire, qui sera inscrit au Registre européen des brevets et auquel seront adressées les notifications).  HORTON; ANDREW ROBERT GRANT			
Geschäftsanschrift (falls erwünscht, mit Angabe der Sozialität oder Firma, in der der Vertreter tätig ist) Address of place of business (including, if desired, the partnership or firm in which the representative works) Adresse professionnelle (si on le souhaite, avec l'indication du cabinet ou de la société où le mandataire exerce ses activités)  BOULT, WADE & TENNANT 27 FURNIVAL STREET LONDON, EC4A 1PQ United Kingdom			
Telefonnummer / Telephone number / Numéro de téléphone  01-404-5921	Telegrammanschrift / Telegraphic address / Adresse télégraphique  BOULT LONDON TELEX	Telexanschrift / Telex address / Numéro de télex  267271 BOULT G	

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<b>III. Erfinder / inventor / inventeur</b> <input type="checkbox"/> Anmelder ist (sind) alleiniger (alleinige) Erfinder. The applicant(s) is (are) the sole inventor(s). Le(s) demandeur(s) est (sont) le (les) seul(s) inventeur(s).			<input checked="" type="checkbox"/> Erfindernennung auf gesondertem Schriftstück. Designation of inventor attached. Voir la désignation de l'inventeur ci-jointe.		
<b>IV. Bezeichnung der Erfindung / Title of invention / Titre de l'invention</b> <p style="text-align: center;">"ELECTRONIC STILL STORE WITH HIGH SPEED SORTING AND METHOD OF OPERATION"</p>					
<b>V. Die Anmeldung ist eine Teilanmeldung</b> <input type="checkbox"/> The application is a divisional application La présente demande constitue une demande divisionnaire Nummer der früheren Anmeldung / Earlier application number / Numéro de la demande initiale			<b>VI. Es handelt sich um eine Anmeldung nach Art. 61 (1) (b)</b> <input type="checkbox"/> The application is an Art. 61 (1) (b) application La présente demande constitue une demande selon l'article 61 (1) (b) Nummer der früheren Anmeldung / Original application number / Numéro de la demande initiale		
<b>VII. Prioritätsbekräftigung (gegebenenfalls) / Declaration of priority (if any) / Déclaration de priorité (s'il y a lieu)</b> (Angabe des Staats und Anmeldetags nicht nachholbar. Bei europäischen und internationalen Anmeldungen ist zumindest ein in diesen Anmeldungen benannter Staat anzugeben) / (Failure to indicate the State and filing date cannot subsequently be made good. At least one State designated in European and international applications must be indicated) / (Il ne peut être remédié au défaut d'indication de l'Etat et de la date de dépôt. Dans le cas de demandes européennes et internationales, il y a lieu d'indiquer au moins un Etat désigné) <input type="checkbox"/> Weitere Priorität(en) ist (sind) in Feld XIX (Seite 5) angegeben. Additional priority claim(s) indicated in Part XIX (page 5). Les autres revendications de priorité sont indiquées à la rubrique XIX (page 5).					
Staat / State / Etat		Anmeldetag / Filing date / Date de dépôt		Aktenzeichen / Application No. / N° de la demande	
1. UNITED STATES OF AMERICA		8th April 1983		483327	
2.					
3.					
4.					
5.					
6.					
<b>VIII. Benennung von Staaten / Designation of States / Désignation des Etats</b> (Da eine nachträgliche Benennung nicht zulässig ist, werden vorsorglich sämtliche Staaten in Feld XVII benannt) (As subsequent designation is not permitted, all States are designated in Part XVII as a precautionary measure) (Etant donné qu'une désignation ultérieure n'est pas admissible, tous les Etats sont désignés à toutes fins utiles à la rubrique XVII)					
1. GERMAN FEDERAL REPUBLIC		9.			
2. FRANCE		10.			
3. UNITED KINGDOM		11.			
4. THE NETHERLANDS		12.			
5. SWITZERLAND & LIECHTENSTEIN		13.			
6.		14.			
7.		15.			
8.		16.			
<b>IX. Verschiedene Anmelder für verschiedene benannte Staaten (gegebenenfalls) / Different applicants for different designated States (where applicable) / Différents demandeurs correspondant aux différents Etats désignés (s'il y a lieu)</b> <input type="checkbox"/> Weiterer verschiedener (Weitere verschiedene) Anmelder ist (sind) in Feld XIX (Seite 5) angegeben. Additional such applicant(s) indicated in Part XIX (page 5). Let(s) différent(s) demandeur(s) additionnel(s) est (sont) mentionné(s) à la rubrique XIX (page 5).					
Name des Anmelders (Namen der Anmelder) / Name(s) of applicant(s) / Nom(s) du (des) demandeur(s)			Benannter Staat (Benannte Staaten) / Designated State(s) / Etat(s) désigné(s)		

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<p>X. Zahl der Patentansprüche: / Number of claims: / Nombre de revendications: <b>THIRTEEN</b></p> <p>Ggf. Zahl der Patentansprüche einer weiteren Reihe von Patentansprüchen (Art. 167 (2) (c)). Number of claims of an additional set of claims (Art. 167 (2) (c)), if any: Le cas échéant, nombre de revendications dans une série supplémentaire de revendications (art. 167 (2) (c)):</p>																	
<p>XI. Zusammenfassung / Abstract / Abrégé</p> <p>Abbildung Nr. 1 wird zur Veröffentlichung mit der Zusammenfassung vorgeschlagen. Figure No. 1 is proposed for publication with the abstract. Il est proposé de publier l'abrégé accompagné de la figure n°</p>																	
<p>XII. Mikroorganismen / Micro-organisms / Micro-organismes</p> <p><input type="checkbox"/> Bei der Erfindung wird ein Mikroorganismus verwendet, der gemäß Regel 28 (1) hinterlegt wurde. The invention involves the use of a micro-organism which has been deposited in accordance with Rule 28 (1). L'invention comporte l'utilisation d'un micro-organisme, qui a été déposé conformément à la règle 28, paragraphe 1. Die Angaben nach Regel 28 (1) (c) / The particulars pursuant to Rule 28 (1) (c) / Les indications fournies conformément à la règle 28, (1) (c)</p> <p><input type="checkbox"/> sind auf Seite(n) ..., Zeile(n) ... der technischen Anmeldungsunterlagen enthalten. are given on page(s) ..., line(s) ... of the technical documents in the application. figurent page(s) ..., ligne(s) ... des pièces techniques de la demande.</p> <p><input type="checkbox"/> werden später mitgeteilt. / will be submitted at a later date. / seront communiquées ultérieurement.</p>																	
<p>XIII. Zusätzliche Abschrift der im europäischen Recherchenbericht angeführten Schriftstücke / Additional copy of the documents cited in the European search report / Copie supplémentaire des documents cités dans le rapport de recherche européenne</p> <p><input checked="" type="checkbox"/> Es wird eine zusätzliche Abschrift der im europäischen Recherchenbericht angeführten Schriftstücke angefordert. An additional copy of the documents cited in the European search report is requested. Une copie supplémentaire des documents cités dans le rapport de recherche européenne est demandée.</p>																	
<p>XIV. Prüfungsantrag (Artikel 94) / Request for examination (Article 94) / Requête en examen (article 94)</p> <p><input checked="" type="checkbox"/> Es wird hiermit beantragt, zu prüfen, ob die europäische Patentanmeldung und die Erfindung, die sie zum Gegenstand hat, den Erfordernissen des Europäischen Patentübereinkommens genügen. It is hereby requested that an examination be carried out to establish whether the European patent application and the invention to which it relates meet the requirements of the European Patent Convention. Le (les) déposant(s) sollicite(nt) que l'on examine si la demande de brevet européen et l'invention qui en fait l'objet satisfont aux conditions prévues par la Convention sur le brevet européen.</p>																	
<p>XV. Gebührenzahlungen / Payment of fees / Paiement des taxes</p> <p>Die nachstehenden Gebühren werden (wurden) entrichtet: / The following fees will be (have been) paid: / Les taxes suivantes vont être (ont été) acquittées:</p> <table border="0"> <tr> <td><input checked="" type="checkbox"/> Anmeldegebühr und Recherchangegebühr nach Artikel 78 (2)</td> <td>Filing fee and search fee pursuant to Article 78 (2)</td> <td>Taxe de dépôt et taxe de recherche, conformément à l'article 78, paragraphe 2</td> </tr> <tr> <td><input checked="" type="checkbox"/> Benennungsgebühr für jeden in Feld VII benannten Vertragsstaat nach Artikel 79 (2)</td> <td>Designation fee pursuant to Article 79 (2) for each Contracting State designated in Part VII</td> <td>Taxe de désignation pour chaque Etat contractant désigné à la rubrique VII, conformément à l'article 79, paragraphe 2</td> </tr> <tr> <td><input checked="" type="checkbox"/> Anspruchsgebühr(en) für den 11. und jeden weiteren Patentanspruch nach Regel 31 (1)</td> <td>Claims fee(s) pursuant to Rule 31 (1) for the 11th and each subsequent claim</td> <td>Taxe(s) pour chaque revendication à partir de la onzième, conformément à la règle 31, paragraphe 1</td> </tr> <tr> <td><input type="checkbox"/> Prüfungsgebühr nach Artikel 94 (2)</td> <td>Examination fee pursuant to Article 94 (2)</td> <td>Taxe d'examen, conformément à l'article 94, paragraphe 2</td> </tr> <tr> <td><input checked="" type="checkbox"/> Gebühr für die zusätzliche Abschrift der im europäischen Recherchenbericht angeführten Schriften</td> <td>Fee for the additional copy of the documents cited in the European search report</td> <td>Taxe pour la copie supplémentaire des documents cités dans le rapport de recherche européenne</td> </tr> </table>			<input checked="" type="checkbox"/> Anmeldegebühr und Recherchangegebühr nach Artikel 78 (2)	Filing fee and search fee pursuant to Article 78 (2)	Taxe de dépôt et taxe de recherche, conformément à l'article 78, paragraphe 2	<input checked="" type="checkbox"/> Benennungsgebühr für jeden in Feld VII benannten Vertragsstaat nach Artikel 79 (2)	Designation fee pursuant to Article 79 (2) for each Contracting State designated in Part VII	Taxe de désignation pour chaque Etat contractant désigné à la rubrique VII, conformément à l'article 79, paragraphe 2	<input checked="" type="checkbox"/> Anspruchsgebühr(en) für den 11. und jeden weiteren Patentanspruch nach Regel 31 (1)	Claims fee(s) pursuant to Rule 31 (1) for the 11th and each subsequent claim	Taxe(s) pour chaque revendication à partir de la onzième, conformément à la règle 31, paragraphe 1	<input type="checkbox"/> Prüfungsgebühr nach Artikel 94 (2)	Examination fee pursuant to Article 94 (2)	Taxe d'examen, conformément à l'article 94, paragraphe 2	<input checked="" type="checkbox"/> Gebühr für die zusätzliche Abschrift der im europäischen Recherchenbericht angeführten Schriften	Fee for the additional copy of the documents cited in the European search report	Taxe pour la copie supplémentaire des documents cités dans le rapport de recherche européenne
<input checked="" type="checkbox"/> Anmeldegebühr und Recherchangegebühr nach Artikel 78 (2)	Filing fee and search fee pursuant to Article 78 (2)	Taxe de dépôt et taxe de recherche, conformément à l'article 78, paragraphe 2															
<input checked="" type="checkbox"/> Benennungsgebühr für jeden in Feld VII benannten Vertragsstaat nach Artikel 79 (2)	Designation fee pursuant to Article 79 (2) for each Contracting State designated in Part VII	Taxe de désignation pour chaque Etat contractant désigné à la rubrique VII, conformément à l'article 79, paragraphe 2															
<input checked="" type="checkbox"/> Anspruchsgebühr(en) für den 11. und jeden weiteren Patentanspruch nach Regel 31 (1)	Claims fee(s) pursuant to Rule 31 (1) for the 11th and each subsequent claim	Taxe(s) pour chaque revendication à partir de la onzième, conformément à la règle 31, paragraphe 1															
<input type="checkbox"/> Prüfungsgebühr nach Artikel 94 (2)	Examination fee pursuant to Article 94 (2)	Taxe d'examen, conformément à l'article 94, paragraphe 2															
<input checked="" type="checkbox"/> Gebühr für die zusätzliche Abschrift der im europäischen Recherchenbericht angeführten Schriften	Fee for the additional copy of the documents cited in the European search report	Taxe pour la copie supplémentaire des documents cités dans le rapport de recherche européenne															
<p>XVI. Antrag auf Rückerstattung der Recherchangegebühr / Request for a refund of the search fee / Demande de remboursement de la taxe de recherche</p> <p><input type="checkbox"/> Ich beantrage hiermit gemäß Art. 10 Gebö die (teilweise) Rückerstattung der Recherchangegebühr, weil das EPA bereits für eine Patentanmeldung, deren Priorität beansprucht wird (siehe Feld VII) oder die eine frühere Anmeldung im Sinn des Art. 76 oder der Regel 15 EPÜ darstellt, einen Recherchenbericht erstellt hat. Pursuant to Art. 10, Rules relating to Fees, I hereby request a (partial) refund of the search fee, because the EPO has already prepared a search report on an application whose priority is claimed (see Part VII) or which is the earlier application within the meaning of Art. 76 or the original application within the meaning of Rule 15 EPC. Je demande par la présente, conformément à l'article 10 du règlement relatif aux taxes, le remboursement (en partie) de la taxe de recherche, l'OEB ayant déjà établi un rapport de recherche pour une demande de brevet dont la priorité est revendiquée (voir rubrique VII) ou qui constitue la demande initiale au sens de l'article 76 ou de la règle 15 de la CBE.</p> <p><input type="checkbox"/> Eine Kopie des Recherchenberichts ist beigelegt. A copy of the search report is attached. Une copie du rapport de recherche est jointe.</p>																	

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## XVII. Vorsorgliche Benennung sämtlicher Vertragsstaaten (Zusatzangabe zu Feld VII: Benennung von Staaten) / Precautionary designation of all the Contracting States (Supplement to Part VII: Designation of States) / Désignation de tous les États contractants à toutes fins utiles (renseignements complémentaires donnés à la rubrique VII - Désignation des États)

- ☒ Die im Feld VII angegebenen Staaten sind jene, für die die Zahlung der Benennungsgebühren vorgenommen wurde oder derzeit beabsichtigt ist. Vorsorglich werden jedoch sämtliche Vertragsstaaten des EPÜ wie folgt benannt:  
Bundesrepublik Deutschland, Niederlande, Vereinigtes Königreich, Schweiz, Frankreich, Luxemburg, Belgien, Schweden, Italien, Österreich, Liechtenstein.<sup>1)</sup>

Es wird ersucht, die Benennung der hier zusätzlich benannten Vertragsstaaten als vom Anmelder zurückgenommen zu betrachten, wenn für diese Staaten die Benennungsgebühren nicht bis zum Ablauf der in Regel 85a vorgesehenen Nachfrist entrichtet werden. Es wird beantragt, von einem Hinweis auf die Regel 85a und einer Mitteilung nach Regel 69 (1) betreffend die hier zusätzlich benannten Vertragsstaaten abzusehen.

The States indicated in Part VII are those for which it is at present intended to pay designation fees if these have not already been paid. As a precautionary measure, however, all the EPC Contracting States are being designated as follows:  
Federal Republic of Germany, Netherlands, United Kingdom, Switzerland, France, Luxembourg, Belgium, Sweden, Italy, Austria, Liechtenstein.<sup>1)</sup> It is hereby requested that the designation of any additional States thereby included be regarded as withdrawn by the applicant if the designation fees have not been paid by the time the period of grace allowed in Rule 85a expires. A reminder of the provisions of Rule 85a and a communication in accordance with Rule 69, paragraph 1, concerning the additional Contracting States designated above will not therefore be required.

Les États mentionnés sous VII sont ceux pour lesquels les taxes de désignation ont été payées ou pour lesquels l'on se propose actuellement de verser les taxes de désignation. A toutes fins utiles, l'ensemble des États contractants de la CBE sont toutefois désignés dans l'ordre suivant:

République fédérale d'Allemagne, Pays-Bas, Royaume-Uni, Suisse, France, Luxembourg, Belgique, Suède, Italie, Autriche, Liechtenstein.<sup>1)</sup>

Il est demandé, au cas où les taxes de désignation pour les États contractants désignés ci-dessus à titre complémentaire ne seraient pas acquittées dans le délai supplémentaire prévu à la règle 85 bis, que la désignation desdits États soit considérée comme retirée par le demandeur. Le soussigné requiert qu'en ce qui concerne ces mêmes États, il soit renoncé à procéder au rappel de la règle 85 bis ainsi qu'à la notification visée à la règle 69, paragraphe 1.

1) Die Liste der Vertragsstaaten gibt den derzeitigen Stand des Ratifikationsverfahrens wieder. Die Reihenfolge der Aufzählung entspricht der Reihenfolge der Hinterlegung der Ratifikations- oder Beitrittsurkunden. Es steht dem Anmelder frei, eine andere Reihenfolge zu wählen. Dafür besteht aber für die bloße vorsorgliche Benennung von Vertragsstaaten kein Anlaß.

1) The list of Contracting States reflects the current state of the ratification procedure. The order of the list corresponds to the order of the deposit of the ratification or accession documents. The applicant is at liberty to follow a different order, although there is no reason for doing so in the case of a purely precautionary designation of Contracting States.

1) La liste des États contractants reflète l'état actuel de la procédure de ratification. L'numération des États suit l'ordre dans lequel les instruments de ratification et d'adhésion ont été déposés. Le demandeur a toute liberté de choisir un ordre différent. Il n'existe toutefois aucune raison de le faire lorsqu'il s'agit seulement de désigner les États contractants à toutes fins utiles.

## XVIII. Liste der beigefügten Unterlagen / Checklist / Liste de contrôle

A. Anmeldeunterlagen und Prioritätsbeleg(e)  
Application documents and priority document(s)  
Pièces de la demande et document(s) de priorité

	Stückzahl Number of copies Nombre d'exemplaires	Blattzahl eines Stückes Number of sheets in each copy Nombre de feuilles par exemplaire
1. Beschreibung* Description	3	8
2. Patentansprüche* Claim(s) Revendication(s)	3	5
2a. Ggf. unterschiedliche Patentansprüche (Art. 167 (2) (a)) / Different claims (Art. 167 (2) (a)), if any / Le cas échéant, revendications différentes (art. 167 (2) (a))	-	-
3. Zeichnung(en)* Drawing(s) Dessin(s)	3	1
4. Zusammenfassung* Abstract Abrégé	3	1
5. Prioritätsbeleg(e) Priority document(s) Document(s) de priorité	1	
6. Übersetzung des (der) Prioritätsbelegs (belegs) / Translation of priority document(s) / Traduction du (des) document(s) de priorité	-	

B. Der Anmeldung in der eingereichten Fassung liegen folgende  
Schriftstücke bei:  
This application as filed is accompanied by the items below:  
A la présente sont annexés les documents suivants:

- ☒ Unterschrift des Erfinders / Signed authorisation /  
Pouvoir signé
- ☒ Erfindernennung / Designation of inventor /  
Désignation de l'inventeur
- ☐ Früherer Recherchenbericht / Earlier search report /  
Rapport de recherche antérieure
- ☒ Abbuchungsauftrag / Instructions to debit account /  
Ordre de débit
- ☐ Sonstige Unterlagen (bitte spezifizieren)  
Other (please specify)  
Autres documents (veuillez préciser)

\* in drei Stücken einzureichen / to be filed in triplicate / à déposer en trois exemplaires

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## XIX. Zusatzangaben / Additional Information / Renseignements complémentaires

- ☐ Wenn Feld XIX nicht ausreicht, weitere Angaben auf gesondertem unterzeichnetem Blatt.  
If there is not enough space in Part XIX, use a separate signed sheet to furnish additional information.  
Au cas où la rubrique XIX se révélerait insuffisante, porter les renseignements complémentaires sur une feuille séparée, signée.

Sollte ein Feld für die einzusetzenden Angaben nicht ausreichen, so ist Feld XIX oder, falls auch hier der Platz nicht ausreichen sollte, ein zusätzliches Blatt zu benützen. Jedes auf dieser Seite fortgesetzte Feld ist mit seiner römischen Zahl und seiner Bezeichnung anzugeben (z.B. „I. Anmelder (Fortsetzung)“).

Use Part XIX if any of the boxes are not large enough to contain information to be furnished. In case there is not enough room, use an additional sheet. Indicate the box continued on this sheet by its (Roman) numeral and title (e.g.: "I. Applicant (continued)").

Prière d'utiliser la rubrique XIX ou une feuille supplémentaire au cas où l'un des emplacements se révélerait insuffisant pour contenir les renseignements à fournir. Chacune des rubriques ainsi complétées sur la présente feuille sera repérée par son numéro (chiffre romain) et son titre (par exemple «I. Demandeur (suite)»).

## II. Representatives (Continued)

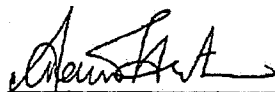
<u>RENNIE:</u>	Ian Malcolm,	<u>BUSHELL:</u>	John Stephen,
<u>BRISTOW:</u>	Cyril,	<u>HARDISTY:</u>	David Robert,
<u>MAYES:</u>	Stuart David,	<u>BAVERSTOCK:</u>	Michael George Douglas,
<u>HORTON</u> XXXXXXXXXXXXXXXXXXXXXXX		<u>BAYLISS:</u>	Geoffrey Cyril,
<u>ALLARD:</u>	Susan Joyce,	<u>BIZLEY:</u>	Richard Edward,
<u>ALEXANDER:</u>	Thomas Bruce,	<u>CROSS:</u>	Rupert Edward Blount

XX. Unterschrift(en) des (der) Anmelders (Anmelder) oder Vertreters (Vertreter)  
Signature(s) of applicant(s) or representative(s)  
Signature(s) du (des) demandeur(s) ou du (des) mandataire(s)

Ort / Place / Lieu LONDON

Datum / Date

30th March 1984


HORTON ; ANDREW ROBERT GRANT

Für Angestellte nach Artikel 133 (3) Satz 1 EPÜ mit  
allgemeiner Vollmacht  
For employees under Article 133 (3) 1st sentence EPC  
having general authorisation  
Pour les employés mentionnés à l'article 133,  
paragraphe 3, 1ère phrase de la CBE, munis d'un  
pouvoir général

Nr. / No. / N°

(Name des (der) Unterzeichneten bitte mit Schreibmaschine wiederholen. Bei juristischen Personen bitte die Stellung des (der) Unterzeichneten innerhalb der Gesellschaft mit Schreibmaschine angeben)  
(Please type name under signature. In the case of legal persons, the position of the signer within the company should also be typed)  
(Le ou les noms des signataires doivent être également dactylographiés. S'il s'agit d'une personne morale, la position occupée au sein de celle-ci par le ou les signataires sera indiquée à la machine à écrire).

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## AX031669

# ERFINDERNENNUNG / DESIGNATION OF INVENTOR / DESIGNATION DE L'INVENTEUR

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In Sachen der europäischen Patentanmeldung (Bezeichnung der Erfindung)  
 In respect of the European patent application (title of the invention)  
 En ce qui concerne la demande de brevet européen (Titre de l'invention)

"ELECTRONIC STILL STORE WITH HIGH SPEED  
 SORTING AND METHOD OF OPERATION"

nennt (nennen) der (die) Unterzeichnete(n)  
 I (we), the undersigned  
 le(s) soussigné(s)

AMPEX CORPORATION

als Erfinder:  
 do hereby designate as inventor(s):  
 désigne(nt) en tant qu'inventeur(s):

57/300 3 84/11

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☐ (Weitere Erfinder sind auf einem gesonderten Blatt angegeben).  
 (Additional inventors indicated on supplementary sheet).  
 (les autres inventeurs sont mentionnés sur une feuille supplémentaire).<sup>3</sup>

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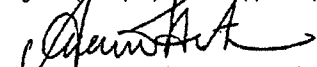
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Datum/Date 30th March 1984

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Datum/Date

21. 12. 92.

Zelchen/Ref/Réf	Anmeldung Nr./Application No./Demande n°/Patent Nr./Patent No./Brevet n°
ARCH/EA 1098	84302203.9-2202/
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Aktenzeichen

File Number

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T 249 191 -351

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Case Number : T T 249/91 - 3.5.1

D E C I S I O N  
of the Technical Board of Appeal 3.5.1  
of 4 December 1992

## Appellant :

Ampex Corporation  
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## Representative :

Horton, Andrew Robert Grant  
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## Decision under appeal :

Decision of the Examining Division of the  
European Patent Office dated 22 October 1990  
refusing European patent application  
No. 84 302 203.9 pursuant to Article 97(1) EPC.

## Composition of the Board :

Chairman : P.K.J. van den Berg  
Members : W.B. Oettinger  
E.M.C. Holtz

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File Number: T 249/91 - 3.5.1

Applicatio84 302 203.9

Publication No.: O 122 094

Title of invention: Electronic still store with high speed sorting and method of operation

Classification: H04N 5/76

D E C I S I O N  
of 4 December 1992

Applicant: Ampex Corporation

Headword:

EPC Articles 54, 56, 83, 84, 111(1), Rules 27(1), 29(1),(2),(5)

Keyword: "Sufficiency of disclosure (considered, confirmed)" - "Claims clear in defining the matter to be protected (yes) - no further specifying feature necessary" - "Claims of the same category concise (yes)" - "Two-part apparatus claims correctly partitioned (yes) - one-part method claim appropriate (yes)" - "Problem can be understood from description (yes)" - "Novelty (yes)" - "Ground for refusal was not lack of inventive step - remittal to first instance for further prosecution (considered not appropriate)" - "Inventive step (confirmed)"

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#### Summary of Facts and Submissions

- I. The appeal contests the decision of the Examining Division dated 22 October 1990 to refuse the European patent application No. 84 302 203.9 (publication number 122 094), filed on 30 March 1984.

The reason given for the refusal was that Claim 1 filed on 14 July 1989 and as amended on 31 July 1990 lacked clarity, did not appear to be properly delimited over the cited prior art and could be read onto the latter, that the independent Claim 7 was not allowable for the same reasons and that the independent Claim 8 was not properly delimited over the prior art either.

As prior art, the Examining Division considered US-A-4 302 776, subsequently referred to as D.

- II. The appeal was lodged and the respective fee paid on 1 December 1990 and the notice of appeal contains a statement implying that the decision is impugned in its entirety.

On 28 February 1991, the Appellant filed a statement of grounds requesting that the appealed decision be set aside.

- III. In response to Communications from the Board discussing the issues of the present case, the Appellant filed, on 25 September 1992, new claims of which the independent claims read as follows:

"1. An electronic still store system comprising:  
an image store (24) arranged for retrievably storing therein a plurality of frames of video images at a full resolution, the image store being capable of storing

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reduced spatial resolution image frames; a frame store (22) which is operable to receive a full spatial resolution image frame and to transfer it to the image store (24), the frame store being operable to receive from the image store a selected video image frame for output, this image frame being either a single full resolution image frame or an image frame comprising reduced resolution image frames; and a size reducer (26) coupled to receive from the frame store a full spatial resolution image frame and in response thereto to produce a reduced spatial resolution copy; characterised in that the size reducer (26) is arranged to return to the frame store (22) the reduced spatial resolution copy, the frame store (22) is operable to receive and store the reduced spatial resolution copy while continuing to store the full spatial resolution image frame, and the image store (22) is arranged to receive and store such a reduced resolution copy in addition to each of a plurality of full resolution image frames that it receives from the frame store.

7. An electronic still store system comprising:  
a frame store (22), a bulk image store (24) and a size reducer (26), the frame store being arranged to receive, transfer to the bulk image store and output repetitively normal image data and the bulk image store being arranged to receive and store image data from the frame store and to provide selected image data to the frame store, the frame store being capable of receiving from the image store, as an alternative to a single normal resolution image frame, a composite image frame composed of a selection of reduced resolution copies retrieved from the bulk image store, characterised in that the size reducer is arranged to provide to the frame store a reduced resolution copy of a normal resolution image frame stored in the frame store, the frame store being arranged to store the normal resolution image frame temporarily in

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first storage locations and the copy thereof in second storage locations, and further characterised in that the bulk image store receives from the frame store and stores a reduced resolution copy of each normal resolution image frame that it receives from the frame store; the data for the said composite image frame being temporarily stored in the said first storage locations.

8. A method of operating a video still store system having an image store (24) and a frame store (22) coupled for bi-directional communication of video data with the image store, comprising in the following order the steps of:

- (a) writing into the frame store video data representing full resolution images;
- (b) transferring to the image store from the frame store video data representing a plurality of full resolution images, generating for each of a plurality of full resolution images originally written into the frame store a respective reduced resolution copy and returning said respective copy to the frame store so that the video data representing each of a plurality of full resolution images written into the image store is accompanied by a respective reduced resolution copy; and
- (c) transferring from the image store to the frame store, for assembly in the frame store as a single composite image, video data representing a reduced resolution copy of each of a selected plurality of full resolution images."

IV. In the accompanying letter, the Appellant specified his request to the effect that a patent be granted on the basis of the following application documents:

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Description: pages 1 and 4 to 8 as published,  
pages 2, 3a, 3b and 3c filed on  
25 September 1992;  
Claims: 1 to 10 filed on 25 September 1992;  
Drawing: 1 sheet, as published.

In support of the request for grant of a patent rather than remittal to the first instance for further prosecution, the Appellant submitted that the cited prior art was disclosed in the application as filed, that the distinctions between the claimed invention and the prior art had been discussed with the Examining Division and that the Division had had ample opportunity for a full examination including the assessment of inventive step.

- V. Oral proceedings, appointed in accordance with the Appellant's auxiliary request, were cancelled when it became clear that the Appellant's main request could be allowed.

#### Reasons for the Decision

1. The appeal (cf. paragraph II) is admissible.
2. The Examining Division in its decision silently assumed that the amendments made to the claims on 14 July 1989 did not introduce any subject-matter extending beyond the content of the application as filed.

The Board agrees with this finding.

The amendments made to the claims on 25 September 1992 only being of a formal nature, the same applies to these amendments.

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More particularly, Claim 1 is based on the original Claim 2, and Claim 7 is based on the original Claim 9. The dependent system claims are based on the original Claims 3 and 5 to 8, and the dependent method claims are based on the original Claims 12 and 13.

Thus, no objection arises under Article 123(2) EPC.

3. In the decision under appeal, the following objections against the independent claims then on file can be identified:

Claim 1:

- The objection that Claim 1 lacks clarity as to the features claimed and as to the problem underlying the difference from the prior art is understood as an objection that Claim 1 in defining the matter for which protection is sought is not clear, i.e. as an objection under Article 84 EPC.
- The objection that Claim 1 is not properly delimited over the prior art is understood as an objection that Claim 1 in (a) indicating the prior art features and (b) stating the features which, in combination therewith, it is desired to protect, is not correctly partitioned, i.e. as an objection under Rule 29(1) EPC in the sense that either its sub-paragraph (a) or (b) or both are violated.
- The objection that Claim 1 can be read on the prior art, is understood as an objection that it would cover subject-matter which cannot be considered to be new, i.e. as an objection under Article 54, particularly (1) and (2), EPC.

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## Claim 7:

- The objections against Claim 7 are also that it lacks clarity (Article 84),
- that Claim 7 is not properly delimited over the prior art (Rule 29(1)), and
- that Claim 7 lacks novelty (Article 54).

## Claim 8:

- The objection against Claim 8 is also understood as an objection under Rule 29(1) EPC.

In addition, the existence of two independent claims of the same category, viz. system Claims 1 and 7, in the absence of a second embodiment from the description would raise the question whether these claims are both necessary; if not, the statement of claims would not be concise (Article 84 and Rule 34(1)(c) EPC).

These issues will now be considered in turn for Claims 1, 7 and 8 now on file, i.e. filed on 25 September 1992, in turn.

4. Lack of clarity of Claim 1 (Article 84 EPC)

4.1 From a merely linguistic point of view, Claim 1 is clear. It defines a system having a configuration which is represented in the drawing by blocks 22, 24 and 26 and with interconnections represented by black lines with arrows and with functions which can briefly be summarised as follows:

- Normal image frames are input to the frame store 22, stored therein and transferred both to the size reducer

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26 and to the image store 24 and stored also in the latter.

- Reduced in size copies are returned from the size reducer 26 to the frame store, stored therein and transferred to the image store 24 where they are stored also.
- Both normal and reduced size images can be returned from image store 24 to frame store 22 and output by the latter.

4.2 Apparently however, the Examining Division did not assume that Claim 1 is unclear from a purely linguistic point of view but that it is not clear from the point of view of a claim's purpose to define the matter for which protection is sought.

4.3 A first example of lack of clarity was seen by the Examining Division in the feature that the frame store (22) "continues to store the full spatial resolution image frame while receiving the reduced spatial resolution copy".

This feature was said to distinguish the claimed invention from the prior art (D), but to be obscure as to what special effect it would allow to achieve and what problem it would be intended to solve.

The Board cannot agree with this latter view.

The said feature can be understood to mean that the frame store is capable from its data capacity and control mechanisms, firstly to store a normal (full size) image frame, secondly to store a reduced resolution (reduced

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size) copy and thirdly to hold the stored full size frame during the storing of the reduced size copy.

The effect of this feature appears clear: in the frame store, both the normal frame and the reduced size copy are stored.

The interpretation of the said feature and its effect appears moreover confirmed by the description, page 6, lines 11 to 24 and lines 26 to 30.

A problem underlying this feature can also be understood: from their origin, the normal frame and the reduced size copy are not normally available at the same time. The "continuing to store" feature renders the normal frame still available in the frame store, when and after the reduced size copy has been returned to it.

- 4.4 A second example of lack of clarity was apparently seen by the Examining Division in that said feature would represent a pure statement of effect without indicating any possible implementation thereof.

In the opinion of the Board, however, keeping one kind of information stored while another is being stored is, for the skilled person, implementable without any difficulty.

- 4.5 A third example of lack of clarity was seen by the Examining Division in the fact that the feature of "the size reducer (being) arranged to return to the frame store the reduced spatial resolution copy" does not indicate the manner in which the size reducer is arranged and connected to the other units of the claimed system for performing this function.

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It is however clear from the wording of the claim that the size reducer is connected to the frame store and, in the opinion of the Board, it is not particularly difficult for the skilled person to arrange the size reducer so that it returns the reduced spatial resolution copy to the frame store.

- 4.6 It is true that Claim 1 does not define any technological details of the image and frame stores and of the size reducer; nor does it define any details of their interconnections over and above their existence or such functional features as their property of carrying particular kinds of image data including the direction of transfer of these data.

However, such more specific technological details going beyond said functional features could hardly be found anywhere in the description; any amendment of Claim 1 to include such details would therefore run the risk of violating Article 123(2) EPC.

- 4.7 On the other hand, if necessary features, essential to the invention, were missing in Claim 1 and these features could not be found in the description, an objection that the claimed invention was not disclosed in the application (as a whole) in a manner sufficiently clear and complete for it to be carried out by a skilled person would be justified.

It is noted, however, that the Examining Division did not raise such an objection under Article 83 EPC.

Nor does the Board see any reason for raising such an objection, considering that a skilled addressee would be able to implement said stores and size reducer, and their

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interconnections, without having to rely on information going beyond common general knowledge.

4.8 Summarising the above, Claim 1 meets, in the opinion of the Board, the requirement that, in defining the matter for which protection is sought, it must be clear (Article 84 EPC).

4.9 As a minor point though, it is noted that a clerical error occurs in the last reference numeral in parentheses: "22" should read "24".

5. Improper delimitation of Claim 1 (Rule 29(1) EPC)

5.1 The pre-characterising portion of Claim 1 is based on D, particularly its Figure 19 embodiment. It is noted that the Figure 19 embodiment is a more economic version of the Figure 18 embodiment insofar as frame store 14 in the input chain and frame store 24 in the output chain are constituted by a single common frame store 14/24 selectively connectable into the input chain or in the output chain by switches 120 and 121.

As a consequence of this fact, it is clear that column 11, lines 35 to 39 must be read as meaning that both switches 120 and 121 simultaneously are either in the upper position (not shown) or in the lower position (as shown) but never in different positions (120 up and 121 down or vice versa).

5.2 Bearing this in mind, the following can be stated in respect of the individual features in the pre-characterising portion of Claim 1:

First feature (page 9, numbered lines 4 to 8): known from D (disc 18/20);

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Second feature (lines 8 to 10): known from D (frame store 14/24 in upper position of switches 120/121);

Third feature (lines 10 to 12): known from D (function of frame store in lower position of switches);

Fourth feature (lines 12 to 14): known from D (function of optional size change 23);

Fifth feature (lines 14 to 17): known from D (size change 23 in input chain with switches 120/121 in upper position).

- 5.3 The following can be stated in respect of the individual features in the characterising portion:

First characterising feature (lines 18 to 19): in D, the size change (23) in its position in the input chain receives image frames from frame store 14/24 (in its "14" function) and sends the reduced size image to image store 18/20. In its position in the output chain, the size change (23) receives image frames from image store 18/20 and sends the reduced size frame to frame store 14/24 (in its "24" function) and other frame stores (124 and 125). But it never "returns" any images received from the frame store, after having changed their size, to the frame store. It is true that, similarly to the frame store 14/24 common to the input and output chains, one and the same size changer can be shared by both the input and output chains (column 11, lines 39 to 47). But this does not mean that a "return" loop exists from frame store 14 via size change 23 in the input chain to size change 23 in the output chain and from there back to frame store 24. Such a return loop would be forbidden firstly because it cannot

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be assumed that, when size change 23 is with its input in the input chain, at the same time its output is in the output chain, and secondly because of the impossibility of switch 120 being down and switch 121 being up at the same time. It follows that the first characterising feature is new against D.

Second characterising feature (lines 19 to 22): In D, the frame store is operable (in its "24" function) to receive (via switch 120 down) and store the reduced size copy. Furthermore, it stores the full size frame (either via switch 120 up or, if a full size frame is read from image store 18/20 and the output size changer 23 is out of function, via switch 120 down). But from D it cannot be derived clearly and unambiguously that the frame store may (although it possibly could) be operable to perform these two functions at the same time, i.e. continue to store the full size frame received at some time either from the input (via switch 120 up) or from the output (via switch 120 down) during those times in which it is receiving (from the output via switch 120 down) the reduced size copy. This feature therefore distinguishes the claimed invention from what can be derived from D and is therefore new.

In this context, it is to be noted that in the claimed invention the expression "copy" is strictly to be understood as meaning the copy of a continuing to exist original, and not one replacing the original. In D, the original full size image may be replaced by its reduced in size version.

Third characterising feature (lines 22 to 25): According to the first feature in the pre-characterising portion of Claim 1, the image store stores full size image frames and is capable of storing also reduced size images. The third

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characterising feature goes beyond this by defining that the image store stores a reduced size copy in addition to each full size frame. In D, the impression prevails that the image store 18/20 can be operated to store full size frames (no size changer 23 in the input chain or, if there, not in operation) or reduced size copies (size changer 23 in operation in input chain) depending on the requirements. But it cannot be derived from D that in every case for each full size frame received from frame store 14 (with size changer 23 absent or off) also a reduced size copy (received from frame store 14 via size changer 23 switched on) shall be stored in the image store in addition to the full size frame. This feature therefore distinguishes the claimed invention from what is disclosed in D, i.e. it is new.

- 5.4 The question whether the delimitation, or partitioning, of Claim 1 with respect to the prior art would be correct or not in relation to a piece of prior art other than D, does not arise. The Examining Division apparently considered D to constitute, of all documents mentioned in the search report, the one coming nearest to the claimed invention.

The Board sees no reason to question this finding.

- 5.5 Summarising, the Board is of the opinion that Claim 1 meets the requirement that (a) the technical features which are part of the prior art are indicated in the pre-characterising portion, and (b) the technical features which are not part of that prior art, are stated in the characterising portion (Rule 29(1) EPC).

6. Lack of novelty of Claim 1 (Article 54 EPC)

- 6.1 It follows already from paragraph 5.3 and 5.4 that the subject-matter of Claim 1 is new.

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6.2 The Board does not, for the reasons explained in paragraphs 4.3 to 4.5, consider Claim 1, or its features, to be so obscure that the new features (paragraph 5.3) could, despite their intended meaning, be "read onto" the prior art (D).

6.3 Thus, in the opinion of the Board, Claim 1 meets the requirement of novelty (Article 54, in particular (1) and (2), EPC).

7. Lack of clarity of Claim 7

7.1 Claim 7 is quite differently worded than Claim 1 but can, from a merely linguistic point of view, be understood.

7.2 Claim 7 appears at least as clear as Claim 1, as far as the definition of the matter for which protection is sought is concerned.

7.3 The Examining Division sees a lack of clarity in Claim 7 similar to the above-mentioned third example of lack of clarity of Claim 1 but for similar reasons as explained above (paragraph 4.5) the Board does not share this view.

7.4 A further example of lack of clarity is seen by the Examining Division in the absence of structural features rendering the frame store "capable of receiving ... as an alternative to a single ... frame, a composite image frame composed of ... reduced resolution copies ...".

The Board sees no particular problem in this absence, considering that the skilled person would know how to make the frame store receive a normal image frame, how to select a number of reduced size copies stored in the image store, how to transfer them to the frame store and how to

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make the frame store store these latter copies instead of the former normal frame.

The Examining Division seems to agree with the Appellant's submission that Claim 7 "represents a fair summary of the description pages 7 and 8" but considers this submission to be a mere statement without the claim containing the necessary implementing features.

Again, the Board must refer in this context to the fact that, if such features were necessary but not to be found in the description, an objection under Article 83 would have to be made and any amendment introducing such features would inevitably have to result in an Article 123(2) objection (cf. paragraphs 4.6 and 4.7). But such objections were not made and the Board sees no reason for such objections either.

7.5 In the opinion of the Board, therefore, Claim 7 meets the requirement of being clear in defining the matter to be protected (Article 84 EPC).

8. Improper delimitation of Claim 7

8.1 This point has not been specified by the Examining Division in any other way than by saying that Claim 7 is closely related to Claim 1.

8.2 The Board has nevertheless taken up this point but has come, after Claim 7 has been amended, to a similar result as with regard to Claim 1 (paragraph 5.5), particularly for the following reasons:

Precharacterising portion: Even though Claim 7 is quite differently worded, for similar reasons as with respect to Claim 1 (cf. paragraph 5.2), Claim 7 contains in its preamble only features known from D.

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First characterising feature (page 11, lines 6 to 8): the size reducer (23) of D is arranged (in its position in the output chain) to provide (via switch 120 down) to the frame store (14/24 in its "24" function) a reduced resolution copy of a normal resolution image frame stored in the image store 18/20 but not in the frame store 14/24 (not even in its "14" function with switch 121 up). This feature is therefore new against D.

Second characterising feature (lines 9 to 11): storing the normal resolution image frame and the (reduced resolution) copy thereof at the same time in different locations does not seem to be the function of frame store 14/24 in any of its two possible connections (switches 120/121 up or down). This feature is therefore new.

Third characterising feature (lines 12 to 15): cf. third characterising feature of Claim 1 (paragraph 5.3).

Fourth characterising feature (lines 15 to 17): From D it cannot be derived that the frame store 14/24 (in its "24" function) is intended to store the composite frame of reduced size image copies temporarily in those (first) locations where otherwise the normal resolution image frame is stored (cf. second characterising feature). This feature is therefore to be regarded as new.

8.3 Claim 7 is therefore considered to meet the requirements of Rule 29(1) EPC.

9. Conciseness of Claims 1 and 7 (Article 84 EPC)

The - admissible (cf. paragraph 2) - restriction of the original Claim 1 by the features of Claim 2 has brought this subject-matter nearer to that of the original Claim 9

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which contained a priori such a restriction. If the consequential similarity in scope of Claims 1 and 7 now on file were such as to render their subject-matters identical, one of these claims would be unnecessary and have to be deleted because of lack of conciseness of the claims under Article 84 EPC. Prima facie, such a finding would appear reasonable and confirmed, in the present case, by the fact that the application in suit contains only one embodiment of the invention disclosed.

However, having compared the individual features of Claims 1 and 7 in detail, the Board has come to the conclusion that these claims differ in subject-matter. In particular:

- The frame store according to Claim 1 is "operable to store the reduced spatial resolution copy while continuing to store the full spatial resolution image frame". According to Claim 7, the frame store is "arranged to store the normal resolution image frame temporarily in first storage locations and the copy thereof in second storage locations" and the composite image frame data are "temporarily stored in the said first storage locations". Thus, apparently, the function of the frame store as defined in Claim 7 is not identical with, but more specific than, the function of that store as defined in Claim 1.
- The image store according to Claim 1 is "arranged for storing a plurality of video image frames at full resolution" and "arranged to store a reduced resolution copy in addition to each of a plurality of full resolution image frames". In Claim 7, the definition of the storing function of the image store is less specific.

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The Board for this reason agrees with the Appellant that Claim 7 should not be regarded as being redundant with respect to Claim 1, and vice versa. As stated in the description (pages 2 and 3a), the system as it is defined in Claim 1 and the system as it is defined in Claim 7 constitute, respectively, different "aspects" of "the" invention. That, in essence, the latter is one and the same invention does not invalidate the finding that, taking the details into account, Claims 1 and 7 cover different subject-matter.

No objection of lack of conciseness arises therefore in respect of the two system claims.

10. Lack of novelty of Claim 7

It follows directly from the above considerations (paragraph 8) that Claim 7 meets the requirement of novelty.

11. Improper delimitation of Claim 8

Claim 8 has been re-drafted in the one-part form. The question of whether this claim is correctly partitioned is therefore, as such, no longer an issue but has been extended to the more general question whether its non-partitioning is appropriate (Rule 29(1) EPC).

In this respect, the Board concludes as follows:

The systems defined in Claims 1 and 7 have practically all their components (image store, frame store, size reducer) in common with the system of D. But the individual functions of these components are different. Claim 8 defines these functions, i.e. the operation of the system,

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in terms of method steps, and the order in which these steps are to be carried out. It is particularly the functional interrelationship between the said components, including the order in which individual functional steps are carried out, which is different from the prior art. Therefore, a two-part form of the method claim would seem to destroy the natural order in which the method steps of the claimed operation are carried out and, moreover, to complicate the wording of this claim.

It is therefore considered that the two-part form would not, in this case, be more appropriate than the one-part form.

Accordingly, Claim 8 is acceptable in its present form.

12. Other formal matters concerning Claim 8

Lack of clarity of Claim 8 has not been alleged by the Examining Division, and the Board agrees with this finding.

In reaching this conclusion, the Board has also considered that it follows from feature (c) as a matter of mere logic that the copies reduced in resolution must, in order to be apt of being assembled to a composite image, necessarily be of reduced size. No lack of clarity or lack of support by the description (Article 84) is therefore to be seen in the fact that no express reference is made to size reduction.

13. Procedural matters

Lack of novelty (Article 54) of Claim 8 neither having been alleged by the Examining Division nor appearing to be an issue which could reasonably be raised, the only

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substantive issue remaining to be decided is whether the claimed systems and method involve an inventive step (Article 56).

The decision under appeal is silent about any examination and conclusion in this respect. From the statement in the impugned decision that it is not clear what problem is underlying the difference between the claimed system and the prior art, no final conclusion can be drawn.

Therefore, prima facie, remittal of the case to the first instance for further prosecution might seem to be warranted.

However, in his first Communication dated 5 October 1988, the Primary Examiner conceded that there are "essential" functional differences between the claimed system and the prior art according to citation D, and that amendments are conceivable which would render the unallowable claims allowable. This also applied to the claimed method. With his second Communication dated 15 September 1989, he enclosed amended Claims 1 and 8 on the basis of which the grant of a patent could be envisaged. From a third Communication, dated 15 May 1990, it can also be derived that the Examiner objected only to the form but not to the substance of the independent claims.

In this situation, it can be assumed that in the Examining Division's opinion the subject-matter claimed involves an inventive step. For this reason, the Board in exercising its discretion under Article 111(1) EPC has decided not to remit the case to the first instance for further prosecution, but to extend the examination of the appeal to the question of inventive step.

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14. Remaining substantive matters

The Primary Examiner's opinion that the application contains subject-matter which involves an inventive step is shared by the Board.

It remains only to be considered whether this conclusion can be drawn for the systems and method defined in the independent claims on file. It would appear, however, that this issue can be decided for Claims 1, 7 and 8 at the same time.

In this respect, the Board concludes as follows:

- 14.1 In paragraph 5.3 each characterizing feature of Claim 1, and in paragraph 8.2 each characterizing feature of Claim 7, has been contrasted with the function of the prior art system, and it is plainly evident that in Claim 8 the same functional differences from the prior art are incorporated.

The objective problem to be solved by these features is apparently to be seen in the fact that several images reduced in size which are to be simultaneously displayed as a composite image need not first be read from the image store and then be reduced for insertion into the multi-image display, but are available at the same time, and furthermore that the original full-size image is still available together with the reduced in size copy thereof for immediate selection in real time. The main and essential advantage of the claimed systems and method is thus the avoidance of any unnecessary delay, i.e. a quick response to any requests for display or transmission is obtained.

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This is not an express aim in D, and if it were an implicit goal, it is not achieved to the extent it is achieved by the claimed systems and method.

Nothing in D would suggest to deviate in any way from its teaching, as far as the functions of the system elements such as the frame store are concerned. No incentive can therefore be derived from D to replace these by different functions; in particular no hint is given to replace them by the new functions defined in the characterizing portions of Claims 1 and 7, and in Claim 8, namely in particular to store both the original image frame and the reduced in size copies in the frame store, and also in the image store. Structurally, this would not even appear to be possible, without modification, for one and the same frame store (cf. Fig. 19) performing the functions of both an input frame store (14) and output frame store (24) (cf. Fig. 18). According to D, this double function is made possible by the frame store performing these functions only at different times by way of switches (120, 121). With the arrangement of Fig. 18, simultaneous performance of both functions would theoretically be possible but the aforementioned problem and its solution by the claimed features are not disclosed, in connection with this embodiment, in D.

The subject-matter of Claims 1 and 7, and that of Claim 8, is therefore not obvious from D.

- 14.2 No other prior art document has been cited against the claimed subject-matter. In particular, the Examining Division has not cited the other document marked Y and X in the Search Report, viz. DE-A-3 113 134.

The Board does not see any reason either to cite that document which is not directly concerned with image size

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reduction and assembly to a composite image, neither alone nor in combination with D, against Claims 1, 7 or 8.

- 14.3 The subject-matter claimed is therefore regarded as involving an inventive step, and in summary the independent claims are allowable.

15. Other application documents

As to the other documents on file, the following is noted:

- 15.1 No objection of significance arises against the dependent claims.

- 15.2 The description on file may not expressly define the technical problem to be solved by the claimed invention.

It is only indirectly that the problem can be understood from the characterizing differences from the prior art re-stated on pages 3a and 3b now on file in conjunction with the disadvantages of the prior art mentioned on page 1 line 28 to page 2 line 4 and in conjunction with advantages resulting from the claimed system and its operation as mentioned on page 3c to page 4 line 14. However, this can be regarded as just meeting the minimum requirement that "the problem (if not expressly stated) and its solution can be understood" (Rule 27(1)(c) EPC).

- 15.3 A European Patent Application of the same Applicant filed on 7 March 1984 entitled "Apparatus and method for chroma separation" was not found by the Board in the EPO's records.

The sentence on page 5 lines 2 to 7 should therefore be deleted.

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15.4 The description may contain more errors as mentioned also by the Primary Examiner but their correction can be left to the Appellant or to the first instance when carrying out the Board's order.

Order

For these reasons, it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the first instance with the order that a patent be granted on the basis of the application documents listed in paragraph IV, with the proviso that the further necessary amendments mentioned in paragraphs 4.9 and 15.3 and any further corrections appearing necessary (cf. paragraph 15.4) are executed.

The Registrar:

The Chairman:

M. Kiehl

P.K.J. van den Berg

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